

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000933**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 09-Dec-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0894**Type of problem:**

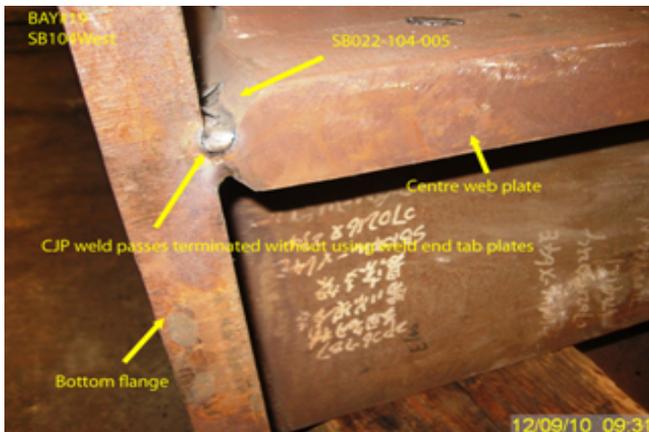
Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Lift 11 Suspender Brackets
Procedural	Procedural	Description:	

Reference Description: Contractor performed CJP welding on Lift 11 Suspender Brackets (SB104W & SB106E) without following the D1.5 requirements (No run-off tap)

Description of Non-Conformance:

During Quality Assurance (QA) random in-process observations of the fabrication of OBG Lift 11 Suspender brackets SB104W and SB106E, this Caltrans QA inspector discovered the following issue:

- ZPMC welding personnel performing welding of CJP joint without using weld tabs (extension bars and run-off plates).
- The weld joints are identified as SB022-104-005 of SB104W and SB023-106-005 of SB106E.
- The welds are Complete Joint Penetration, T joints joining center web plates (SB104W-A and SB106E-A) to side plates (X64A and X64B).
- The welding being performed using Flux cored arc welding process in the Flat position (1G).
- The thicknesses of the web and side plates are 45 mm and 35 mm.
- OBG Suspender brackets are currently located in the Sub-assembly Bay19.
- On October 24, 2010, a similar non-conformance took place in Bay 19 also. Reference NCR ZPMC-0835.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:

American Weld Society (AWS) D1.5 2002 section 3.12.1 "Welds shall be terminated at the end of a joint in a manner that will ensure sound welds. Whenever possible, this shall be done using weld tabs (extension bars and run off plates) placed in a manner that will duplicate the joint detail being welded".

Who discovered the problem: Chandrakumar Sudalaimuthu

Name of individual from Contractor notified: Peng Wen Jun

Time and method of notification: 10:00 hours, 12/09/2010, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 19:00 hours, 12/09/2010, Email

QC Inspector's Name: Guo Xing Hui

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Jim Devey, (86) 150-0002-6784, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
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Reviewed By:	Devey, Jim	SMR
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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
 333 Burma Road
 Oakland CA 94607
 Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV **Date:** 10-Dec-2010
 375 BURMA ROAD
 OAKLAND CA 95607 **Contract No:** 04-0120F4
 04-SF-80-13.2 / 13.9
Dear: Mr. Charles Kanapicki **Job Name:** SAS Superstructure
Attention: Mr. Thomas Nilsson Project/Fabrication Manager **Document No:** 05.03.06-000890
Subject: NCR No. ZPMC-0894

Reference Description: Contractor performed CJP welding on Lift 11 Suspender Brackets (SB104W & SB106E) without following the D1.5 requirements (1)

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: OBG **Lift:** 11

Remarks:

- During Quality Assurance (QA) random in-process observations of the fabrication of OBG Lift 11 Suspender brackets SB104W and SB106E, this Caltrans QA inspector discovered the following issue:
- ZPMC welding personnel performing welding of CJP joint without using weld tabs (extension bars and run-off plates).
- The weld joints are identified as SB022-104-005 of SB104W and SB023-106-005 of SB106E.
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- The thicknesses of the web and side plates are 45 mm and 35 mm.
- OBG Suspender brackets are currently located in the Sub-assembly Bay19.
- On October 24, 2010, a similar non-conformance took place in Bay 19 also. Reference NCR ZPMC-0835.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issued is expected within 7 days.

Transmitted by: Laraine Woo Transportation Engineer
Attachments: ZPMC-0894

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao, Bill Casey
File: 05.03.06

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000890

Subject: NCR No. ZPMC-0894

Dated: 23-Feb-2011

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000924 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC is providing NDT of the welds to show they are acceptable despite being welded without run off tabs.

ZPMC is providing NDT of the welds to show they are acceptable despite being welded without run off tabs. The QC inspector has been reminded that these must be checked prior to welding to prevent future occurrences. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000924R00;

Caltrans' comments:

Status: CLO

Date: 23-Feb-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0894 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 23-Feb-2011



TRANSMITTAL LETTER

PROJECT: S.F.O.B.B.

DATE:2011-02-22

TO: ROSEMARY/ABF JV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: OBG NCR

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS

ENCLOSED WITH THIS TRANSMITTAL IS ONE COPY OF

(01) LR: No. B-975

(02) NCR-000933(ZPMC-0894)

B787-UT-18440 R6

B787-UT-18443 R5

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT

PLAN HOLDER:

Rosemary

DATE:

16:16

RECEIVED 22 FEB 2011

COMPANY:



PHONE NO.

PLAN NUMBER:N/A

#R787-QCP-102



No. B-975

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2011-2-22

REGARDING: NCR-000933(ZPMC-0894)

ZPMC acknowledged this problem and has issued an internal NCR. The CWR also has been made to repair the locations. Now ZPMC is providing the NDT records to show this weld is acceptable. ZPMC QA has instructed the production to notice this issue and QC will pay more attention on such unacceptable welding process. Based on this, ZPMC requests this NCR to be closed.

ATTACHMENT:

NCR-000933(ZPMC-0894)

B787-UT-18440 R6

B787-UT-18443 R5

Zhangwei
2011/2/22.



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
 333 Burma Road
 Oakland CA 94607
 Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
 375 BURMA ROAD
 OAKLAND CA 95607

Date: 10-Dec-2010

Contract No: 04-0120F4
 04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki
Job Name: SAS Superstructure

Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Document No: 05.03.06-000890

Subject: NCR No. ZPMC-0894

Reference Description: Contractor performed CJP welding on Lift 11 Suspender Brackets (SB104W & SB106E) without following the D1.5 requirements (1

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

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- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: OBG **Lift:** 11

Remarks:

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Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issued is expected within 7 days.

Transmitted by: Laraine Woo Transportation Engineer
Attachments: ZPMC-0894

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao, Bill Casey
File: 05.03.06

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Contract #: 04-0120F4
 Cty: SF/ALA Rte: 80 PM: 13.2/13.9
 File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China

Report No: NCR-000933

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 09-Dec-2010

Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

NCR #: ZPMC-0894

Type of problem:

Welding Concrete Other

Welding Curing Procedural **Bridge No:** 34-0006

Joint fit-up Coating Other **Component:** Lift 11 Suspender Brackets

Procedural Procedural Description:

Reference Description: Contractor performed CJP welding on Lift 11 Suspender Brackets (SB104W & SB106E) without following the D1.5 requirements (No run-off tap)

Description of Non-Conformance:

During Quality Assurance (QA) random in-process observations of the fabrication of OBG Lift 11 Suspender brackets SB104W and SB106E, this Caltrans QA inspector discovered the following issue:

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:

American Weld Society (AWS) D1.5 2002 section 3.12.1 "Welds shall be terminated at the end of a joint in a manner that will ensure sound welds. Whenever possible, this shall be done using weld tabs (extension bars and run off plates) placed in a manner that will duplicate the joint detail being welded".

Who discovered the problem: Chandrakumar Sudalaimuthu

Name of individual from Contractor notified: Peng Wen Jun

Time and method of notification: 10:00 hours, 12/09/2010, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 19:00 hours, 12/09/2010, Email

QC Inspector's Name: Guo Xing Hui

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Jim Devey, (86) 150-0002-6784, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
Reviewed By:	Devey, Jim	SMR

0894



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-18440R6 DATE 2011.01.22 PAGE 1 OF 1 Revision No: 0

PROJECT NO.: 工程编号 ZP06-787 CONTRACTOR: CALTRANS

ITEMS NAME: 部件名称	SUPPORT BEAM	DRAWING NO.: 图号	SB104W	CALTRANS CONTRACT NO.: 04-0120F4 加州工程编号
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REFERENCING CODE 参考规范 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002(Table 6.3)	PROCEDURE NO. 程序编号 ZPQC-UT-01
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WELDING PROCESS 焊接方法 SMAW	JOINT TYPE 焊缝类型 T-JOINT	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2010
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EQUIPMENT 设备 UT SCOPE	MANUFACTURER 制造商 AMERICA	MODEL NO. 样式编号 EPOCH-XT	SERIAL NO. 序列编号 070150911
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CALIBRATION BLOCK 试块 AWS IIV BLOCK TYPE II	COUPLANT 耦合剂 C.M.C	MATERIAL/THICKNESS 材料厚度 A709M-345T2 35/28mm
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TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
AMERICA	70°	2.25MHz	0.75×0.625 in				
Reference Level 参考灵敏度						20dB	

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)							
									a	b	c	d	Length 长度			Sound Path 声程
SB022-104-005	1R6	70					53								ACC.	100%

AFTER B-CWR2693REV3

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EXAMINED BY 主探 <i>Rai Geng sheng</i> LEVEL - II SIGN DATE 2011.01.26	REVIEWED BY 审核 <i>XU Konggang</i> LEVEL - II SIGN DATE 2011.01.26
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质量经理 / QCM <i>Lu Jianhua</i> 签字 SIGN / 日期 DATE 2011.01.26	用户 CUSTOMER _____ 签字 SIGN / 日期 DATE
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REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-18443R5 DATE 2011.01.26 PAGE 1 OF 1 Revision No: 0

PROJECT NO.: 工程编号 ZP06-787 CONTRACTOR: CALTRANS

ITEMS NAME: SUPPORT BEAM DRAWING NO.: SB106E CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范 ACCEPTANCE STANDARD 接受标准 PROCEDURE NO. 程序编号
 AWS D1.5-2002 AWS D1.5-2002(Table 6.3) ZPQC-UT-01

WELDING PROCESS 焊接方法 JOINT TYPE 焊缝类型 CALIBRATION DUE DATE 仪器校正有效期
 SMAW T-JOINT Dec. 28ST, 2011

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE HANWEI H610e 61e1698

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIV BLOCK TYPE II C.M.C A709M-345T2 28/45/35mm

TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
AMERICA	70°	2.25MHz	0.75×0.625 in				
Reference Level 参考灵敏度						20dB	

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)						
									a	b	c	d	Length 长度		
SB023-106-005	1R5	70				50								ACC.	100%
	2R5	70				50								ACC.	100%

AFTER B-CWR2747REV2

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EXAMINED BY 主探 Dai Geny sheng REVIEWED BY 审核 XU Rong gang
 LEVEL - II SIGN 1 DATE 2011.01.26 LEVEL - II SIGN 1 DATE 2011.01.26

质量经理 / QCM LU jian hua 用户 CUSTOMER _____
 签字 SIGN / 日期 DATE 2011.01.26 签字 SIGN / 日期 DATE _____

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

Location: Changxing Island, Shanghai, P.R. China**Report No:** NCS-000909**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Feb-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0894**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Description:	

Date the Non-Conformance Report was written: 09-Dec-2010**Description of Non-Conformance:**

During Quality Assurance (QA) random in-process observations of the fabrication of OBG Lift 11 Suspender brackets SB104W and SB106E, this Caltrans QA inspector discovered the following issue:

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- The thicknesses of the web and side plates are 45 mm and 35 mm.
- OBG Suspender brackets are currently located in the Sub-assembly Bay19.
- On October 24, 2010, a similar non-conformance took place in Bay 19 also. Reference NCR ZPMC-0835.

Contractor's proposal to correct the problem:

Contractor to provide NDT report to prove the welds are acceptable despite being welded without run off tabs. The QC inspector will be reminded the fit-up must be checked prior to welding to prevent future occurrences.

Corrective action taken:

Contractor submitted the NDT report showing the welds are acceptable. QC inspector was reminded that fit-up including run-on/run-off tabs must be checked prior to welding to prevent future occurrences.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?** Yes No**Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Wahbeh, Mazen 818-292-0659, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer